

What Is Claimed

1 1. A method of displaying original image data that was generated relative to a
2 first color space by an output device that converts image data of a second color
3 space to a visually-perceptible analog thereof, the method comprising:

4 receiving from a provider, over a communication channel, original image data
5 that was generated according to a first color space;

6 receiving from said provider, over a communication channel along with said
7 image data, tag data representing parameters of said first color space;

8 said output device automatically converting said original image data into said
9 second color space according to said tag data to produce converted image data; and

10 said output device converting said converted image data into a visually-
11 perceptible analog thereof.

1 2. The method of claim 1, wherein said provider is a computing device and said
2 communication channel is a direct connection between said computing device and
3 said output device, or

4 wherein said provider is a memory device and said communication channel is
5 a direct connection between said memory device and said output device; or

6 wherein said provider is a server and said communication channel is a
7 network to which said output device is connected.

1 3. The method of claim 1, wherein said output device is a component of a
2 personal computing device connected to said network.

1 4. The method of claim 3, wherein said network connection is wireless.

1 5. The method of claim 1, wherein said provider receives said original image data
2 from a source.

1 6. The method of claim 5, wherein said source is a scanner, a digital camera or a
2 signal generator.

1 7. The method of claim 1, wherein said output device is a monitor, a projector or
2 a printer.

1 8. The method of claim 1, wherein said tag data include
2 a code identifying a color space,
3 primary coordinates,
4 tone characteristics,
5 color representation characteristics, or
6 parameters for image processing.

1 9. The method of claim 8, wherein said tag data are a combination of said
2 primary coordinates and said tone characteristics, or
3 wherein said tone characteristics include a gamma value for said first color
4 space and table values for tone conversion, or
5 said color reproduction characteristics include one of RGB signal levels for
6 specific colors or a combination of hue, chroma and value coordinates.

1 10. The method of claim 9, wherein said hue, chroma and value coordinates are
2 expressed in absolute magnitudes or relative magnitudes.

1 11. A method of displaying original image data that was generated relative to a
2 first color space by an output device that converts image data of a second color
3 space to a visually-perceptible analog thereof, the method comprising:

4 receiving from a provider, over a communication channel, original image data
5 that was generated according to a first color space;

6 monitoring the presence of tag data, representing parameters of a color space,
7 over said communication channel along with said image data;

8 presuming, if no tag data is received over said communication channel, that
9 said first color space is a default color space;

10 said output device converting said original image data into said second color
11 space based upon the presumption that said first color space is said default color
12 space to produce converted image data; and

13 said output device converting said converted image data into a visually-
14 perceptible analog thereof.

1 12. The method of claim 11, wherein said provider is a computing device and said
2 communication channel is a direct connection between said computing device and
3 said output device, or

4 wherein said provider is a memory device and said communication channel is
5 a direct connection between said memory device and said output device, or

6 wherein said provider is a server and said communication channel is a
7 network to which said output device is connected.

1 13. The method of claim 11, wherein said output device is a component of a
2 personal computing device connected to said network.

1 14. The method of claim 13, wherein said network connection is wireless.

1 15. The method of claim 11, wherein said provider receives said original image
2 data from a source.

1 16. The method of claim 15, wherein said source is a scanner, a digital camera or
2 a signal generator.

1 17. The method of claim 11, wherein said output device is a monitor, a projector or
2 a printer.

1 18. The method of claim 11, wherein said default color space is standard RGB
2 (sRGB).

1 19. The method of claim 11, further comprising:
2 said output device retrieving data representing parameters of said default color
3 space, wherein said parameters include
4 a code identifying a color space,
5 primary coordinates,
6 tone characteristics,
7 color representation characteristics, or
8 parameters for image processing.

1 20. The method of claim 19, wherein said parameters are a combination of said
2 primary coordinates and said tone characteristics, or
3 wherein said tone characteristics include a gamma value for said first color
4 space and table values for tone conversion, or
5 said color reproduction characteristics include one of RGB signal levels for
6 specific colors or a combination of hue, chroma and value coordinates.

1 21. The method of claim 20, wherein said hue, chroma and value coordinates are
2 expressed in absolute magnitudes or relative magnitudes.

1 22. A computing system, having an output device that converts image data of a
2 second color space to a visually-perceptible analog of said image data, to display
3 original image data that was generated relative to a first color space, the apparatus
4 comprising:

5 a provider of image data;

6 a communication channel; and

7 an output device that converts image data of a second color space to a
8 visually-perceptible analog thereof;

9 said output device being operable to receive said original image data, that was
10 generated according to a first color space, from said provider over said
11 communication channel;

12 said output device being operable to receive, along with said image data, tag
13 data representing parameters of said first color space from said provider over said
14 communication channel;

15 said output device being operable to convert said original image data relative
16 to said second color space according to said tag data to produce converted image
17 data; and

18 said output device being operable to convert said converted image data into a
19 visually-perceptible analog thereof.

1 23. The computing system of claim 22, wherein said provider is a computing
2 device and said communication channel is a direct connection between said
3 computing device and said output device, or

4 wherein said provider is a memory device and said communication channel is
5 a direct connection between said memory device and said output device; or wherein
6 said provider is a server and said communication channel is a network to which said
7 output device is connected.

1 24. The computing system of claim 22, wherein said output device is a component
2 of a personal computing device connected to said network.

1 25. The computing system of claim 24, wherein said network connection is
2 wireless.

1 26. The computing system of claim 22, wherein said provider receives said
2 original image data from a source.

1 27. The computing system of claim 26, wherein said source is a scanner, a digital
2 camera or a signal generator.

1 28. The computing system of claim 22, wherein said output device is a monitor, a
2 projector or a printer.

1 29. The computing system of claim 22, wherein said output device is a first output
2 device and said converted image data is first converted image data, the computing
3 system having at least a second output device that converts image data of a third
4 color space to a visually-perceptible analog of said image data; and wherein

5 said provider is operable to transmit said original image data to said
6 second output device;

7 said provider is operable to transmit said tag data along with said
8 original image data to said second output device; and

9 said second output device is operable to convert said original image
10 data relative to said third color space according to said tag data to produce second
11 converted image data; and

12 said second output device is operable to convert said second converted
13 image data into a visually-perceptible analog substantially simultaneously with said

14 first output device converting said first converted image data into a visually-
15 perceptible analog thereof.

1 30. The computing system of claim 29, wherein said first device is a default
2 monitor for said computing system and said second device is an auxiliary monitor.

1 31. The computing system of claim 30, wherein said auxiliary monitor is a
2 projector device.

1 32. A computing system, having an output device that converts image data of a
2 second color space to a visually-perceptible analog of said image data, to display
3 original image data that was generated relative to a first color space, the apparatus
4 comprising:

5 a provider of image data;

6 a communication channel; and

7 an output device that converts image data of a second color space to a
8 visually-perceptible analog thereof;

9 said output device being operable to receive said original image data, that was
10 generated according to a first color space, from said provider over said
11 communication channel;

12 said output device being operable to monitor the presence of tag data,
13 representing parameters of a color space, over said communication channel along
14 with said image data;

15 said output device being operable to presume, if no tag data is received over
16 said communication channel, said first color space as being a default color space;

17 said output device being operable to convert said original image data relative
18 to said second color space based upon the presumption that said first color space is
19 said default color space to produce converted image data; and

20 said output device being operable to convert said converted image data into a
21 visually-perceptible analog thereof.

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1 33. The computing system of claim 32, wherein said provider is a computing
2 device and said communication channel is a direct connection between said
3 computing device and said output device, or

4 wherein said provider is a memory device and said communication channel is
5 a direct connection between said memory device and said output device; or

6 wherein said provider is a server and said communication channel is a
7 network to which said output device is connected.

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1 34. The computing system of claim 32, wherein said output device is a component
2 of a personal computing device connected to said network.

4
1 35. The computing system of claim 34, wherein said network connection is
2 wireless.

5
1 36. The computing system of claim 32, wherein said provider receives said
2 original image data from a source.

6
1 37. The computing system of claim 36, wherein said source is a scanner, a digital
2 camera or a signal generator.

7
1 38. The computing system of claim 32, wherein said output device is a monitor, a
2 projector or a printer.

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1 39. The computing system of claim 32, wherein said output device is a first output
2 device and said converted image data is first converted image data, the computing

3 system having at least a second output device that converts image data of a third
4 color space to a visually-perceptible analog of said image data; and wherein

5 said provider is operable to transmit said original image data to said
6 second output device;

7 said provider is operable to transmit said tag data along with said
8 original image data to said second output device; and

9 said second output device is operable to convert said original image
10 data relative to said third color space according to said tag data to produce second
11 converted image data; and

12 said second output device is operable to convert said second converted
13 image data into a visually-perceptible analog substantially simultaneously with said
14 first output device converting said first converted image data into a visually-
15 perceptible analog thereof.

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1 40. The computing system of claim 39, wherein said first device is a default
2 monitor for said computing system and said second device is an auxiliary monitor.

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1 41. The computing system of claim 39, wherein said auxiliary monitor is a
2 projector device.

1 42. The computing system of claim 32, wherein said default color space is
2 standard RGB (sRGB).